

AMENDMENTS TO CLAIMS

Please amend the claims as indicated hereinafter.

1. (Currently amended) A method, comprising the computer-implemented steps of:
in a security controller that is coupled, through a network, to a network device having a first network address assigned from a first subset of addresses within a first specified pool associated with normal network users;
determining a user identifier associated with the network device that has caused a security event in the network;
in response to the security event, causing the network device to acquire a new network address that is selected from a second subset of addresses within a second specified pool associated with suspected malicious network users;
wherein the second subset of addresses is different from the first subset of addresses; and
configuring one or more security restrictions with respect to the selected new network address.
2. (Original) A method as recited in Claim 1, further comprising the steps of:
receiving information identifying the security event in the network;
correlating the security event information with network user information to result in determining the user identifier associated with the network device.
3. (Currently amended) A method as recited in Claim 1, wherein the network device uses dynamic host control protocol (DHCP) to obtain the new network address, and wherein the step of causing the network device to acquire the new network address comprises resetting a port that is coupled to the network device to prompt a user to command the network device to request a new network address using DHCP.

4. (Currently amended) A method as recited in Claim 1, wherein the network device uses dynamic host control protocol (DHCP) to obtain the new network address, and wherein the step of causing the network device to acquire the new network address comprises issuing a DHCP FORCE_RENEW message to the network device.
5. (Currently amended) A method as recited in Claim 1, wherein the network device uses dynamic host control protocol (DHCP) to obtain the new network address, and wherein the step of causing the network device to acquire the new network address comprises prompting the network device to request a new network address using DHCP.
6. (Currently amended) A method as recited in Claim 1, wherein the network device uses dynamic host control protocol (DHCP) to obtain the new network address, and wherein the step of causing the network device to acquire the new network address comprises waiting for expiration of a lease for a current network address of the network device.
7. (Previously presented) A method as recited in Claim 1, wherein the step of causing the network device to acquire the new network address comprises the step of providing the network device with an IP address that is selected from a plurality of IP addresses within a special IP subnet.
8. (Original) A method as recited in Claim 7, further comprising the step of publishing information describing characteristics of the special IP subnet to network service providers.
9. (Currently amended) A method as recited in Claim 1, wherein the step of configuring security restrictions comprises the steps of modifying an internet protocol (IP) access control list (ACL) associated with a port that is coupled to the network device to permit entry of IP traffic from only the selected-new network address.

10. (Currently amended) A method as recited in Claim 1, wherein the step of configuring security restrictions comprises the steps of modifying a media access control (MAC) ACL associated with a port that is coupled to the network device to permit entry of traffic only for a MAC address that is bound to the selected new network address.
11. (Original) A method as recited in Claim 1, further comprising the steps of determining whether a malicious act caused the security event, and if so, providing information about the security event or malicious act to a security decision controller.
12. (Currently amended) A method as recited in Claim 1, further comprising the steps of determining whether a malicious act caused the security event, and if not, removing the user from the elevated risk group second specified pool.
13. (Original) A method as recited in Claim 1, further comprising the steps of determining whether a malicious act caused the security event, wherein a legal user action in the network is not determined to be a malicious act if the user is associated with a trusted customer of a network service provider.
14. (Currently amended) A method, comprising the computer-implemented steps of:
in a security controller that is coupled, through a network, to a network device having a first network address assigned from a first subset of addresses within a first specified pool associated with normal network users;
receiving information identifying a security event in the network;
correlating the security event information with network user information to result in determining a network user associated with the network device that caused the security event;
in response to receiving the information identifying the security event, placing the user in an elevated risk security group by causing the network device to acquire a new network address that is selected from a second subset of addresses within a second specified pool associated with suspected malicious network users;

wherein the second subset of addresses is different from the first subset of addresses;

configuring one or more security restrictions with respect to the ~~selected~~new network address;

determining whether a malicious act caused the security event;

if a malicious act caused the security event, then providing information about the security event or malicious act to a security decision controller;

if a malicious act did not cause the security event, then removing the user from the elevated risk group.

15. (Canceled)

16. (Currently amended) A method as recited in Claim 145, wherein ~~forcing~~causing the ~~user~~ network device to acquire the new network address comprises the steps of:

re-configuring a dynamic host control protocol (DHCP) server to require said server to issue any new network address to the network device only from a specified group of network addresses that is reserved for users associated with elevated user risk; and

performing any one of the steps of:

- (a) resetting a port that is coupled to the network device to trigger the network device to request a new network address using DHCP;
- (b) issuing a DHCP FORCE_RENEW message to the network device;
- (c) prompting the network device to request a new network address using DHCP; or
- (d) waiting for expiration of a lease for ~~a~~the currentthe first network address of the network device.

17. (Currently amended) A method as recited in Claim 14, wherein the step of configuring one or more security restrictions comprises the steps of:

modifying an internet protocol (IP) access control list (ACL) associated with a port that is coupled to the network device to permit entry of IP traffic from only the selected new network address; and

modifying a media access control (MAC) ACL associated with the port to permit entry of traffic only for a MAC address that is bound to the selected-new network address.

18. (Currently amended) A computer-readable storage medium carrying one or more sequences of instructions, which instructions, when executed by one or more processors, cause the one or more processors to carry out the steps of:
 - in a security controller that is coupled, through a network, to a network device having a first network address assigned from a first subset of addresses within a first specified pool associated with normal network users;
 - determining a user identifier associated with the network device that has caused a security event in the network;
 - in response to the security event, causing the network device to acquire a new network address that is selected from a second subset of addresses within a second specified pool associated with suspected malicious network users;
wherein the second subset of addresses is different from the first subset of addresses; and
 - configuring one or more security restrictions with respect to the selected-new network address.
19. (Currently amended) An apparatus, comprising:
 - in a security controller that is coupled, through a network, to a network device having a first network address assigned from a first subset of addresses within a first specified pool associated with normal network users;
 - means for determining a user identifier associated with the network device that has caused a security event in the network;

means for, in response to the security event, causing the network device to acquire a new network address that is selected from a second subset of addresses within a second specified pool associated with suspected malicious network users;

wherein the second subset of addresses is different from the first subset of addresses; and

means for configuring one or more security restrictions with respect to the selected new network address.

20. (Currently amended) An apparatus, comprising:

a network interface that is coupled to a data network for receiving one or more packet flows therefrom;

a processor;

one or more stored sequences of instructions which, when executed by the processor, cause the processor to carry out the steps of:

in a security controller that is coupled, through ~~a~~the data network, to a network device having a first network address assigned from a first subset of addresses within a first specified pool associated with normal network users;

determining a user identifier associated with the network device that has caused a security event in the network;

in response to the security event, causing the network device to acquire a new network address that is selected from a second subset of addresses within a second specified pool associated with suspected malicious network users; wherein the second subset of addresses is different from the first subset of addresses; and

configuring one or more security restrictions with respect to the selected new network address.

21–23. (Canceled).

24. (Currently amended) A computer-readable storage medium carrying one or more sequences of instructions, which instructions, when executed by one or more processors, cause the one or more processors to carry out the steps ~~as recited in any of Claims 14, 15, 16, or 17 of:~~
in a security controller that is coupled, through a network, to a network device having a first network address assigned from a first subset of addresses within a first specified pool associated with normal network users;
receiving information identifying a security event in the network;
correlating the security event information with network user information to result in determining a network user associated with the network device that caused the security event;
in response to receiving the information identifying the security event, placing the user in an elevated risk security group by causing the network device to acquire a new network address that is selected from a second subset of addresses within a second specified pool associated with suspected malicious network users;
wherein the second subset of addresses is different from the first subset of addresses;
configuring one or more security restrictions with respect to the new network address;
determining whether a malicious act caused the security event;
if a malicious act caused the security event, then providing information about the security event or malicious act to a security decision controller;
if a malicious act did not cause the security event, then removing the user from the elevated risk group.

25. (Currently amended) An apparatus comprising ~~means for performing the functions recited in the steps of any of Claims 14, 15, 16, or 17;~~

in a security controller that is coupled, through a network, to a network device having a first network address assigned from a first subset of addresses within a first specified pool associated with normal network users:
means for receiving information identifying a security event in the network;
means for correlating the security event information with network user information to result in determining a network user associated with the network device that caused the security event;
means for, in response to receiving the information identifying the security event, placing the user in an elevated risk security group by causing the network device to acquire a new network address that is selected from a second subset of addresses within a second specified pool associated with suspected malicious network users;
wherein the second subset of addresses is different from the first subset of addresses;
means for configuring one or more security restrictions with respect to the new network address;
means for determining whether a malicious act caused the security event;
means for, if a malicious act caused the security event, then providing information about the security event or malicious act to a security decision controller;
means for, if a malicious act did not cause the security event, then removing the user from the elevated risk group.

26. (Currently amended) An apparatus, comprising:
a network interface that is coupled to a data network for receiving one or more packet flows therefrom;
a processor; and
one or more stored sequences of instructions which, when executed by the processor, cause the processor to carry out:

in a security controller that is coupled, through a network, to a network device having a first network address assigned from a first subset of addresses within a first specified pool associated with normal network users; receiving information identifying a security event in the network; correlating the security event information with network user information to result in determining a network user associated with the network device that caused the security event; in response to receiving the information identifying the security event, placing the user in an elevated risk security group by causing the network device to acquire a new network address that is selected from a second subset of addresses within a second specified pool associated with suspected malicious network users; wherein the second subset of addresses is different from the first subset of addresses; configuring one or more security restrictions with respect to the selected new network address; determining whether a malicious act caused the security event; if a malicious act caused the security event, then providing information about the security event or malicious act to a security decision controller; if a malicious act did not cause the security event, then removing the user from the elevated risk group.

27. (Canceled)
28. (Currently amended) The apparatus of claim 267, wherein the instructions which when executed cause ~~forcing the user~~ network device to acquire a new network address comprise further instructions which when executed cause:

re-configuring a dynamic host control protocol (DHCP) server to require said server to issue any new network address to the network device only from a specified group of network addresses that is reserved for users associated with elevated user risk; and

performing any one of the steps of:

- (e)(a) resetting a port that is coupled to the network device to trigger the network device to request a new network address using DHCP;
- (f)(b) issuing a DHCP FORCE_RENEW message to the network device;
- (g)(c) prompting the network device to request a new network address using DHCP; or
- (h)(d) waiting for expiration of a lease for a ~~current~~ the first network address of the network device.

29. (Currently amended) The apparatus of claim 26, wherein the instructions which when executed cause configuring one or more security restrictions comprise instructions which when executed cause:

modifying an internet protocol (IP) access control list (ACL) associated with a port that is coupled to the network device to permit entry of IP traffic from only the ~~selected~~ new network address; and

modifying a media access control (MAC) ACL associated with the port to permit entry of traffic only for a MAC address that is bound to the ~~selected~~ new network address.

30. (Currently amended) The apparatus of claim 20, wherein the network device uses dynamic host control protocol (DHCP) to obtain the new network address, and wherein the instructions which when executed cause the network device to ~~receive-acquire~~ a new network address comprise instructions which when executed cause resetting a port that is coupled to the network device to prompt a user to command the network device to request a new network address using DHCP.

31. (Currently amended) The apparatus of claim 20, wherein instructions which when executed cause the network device to receive acquire a new network address comprise instructions which when executed cause providing the network device with an IP address that is selected from a plurality of IP addresses within a special IP subnet.
32. (New) The apparatus of claim 20, wherein the network device uses dynamic host control protocol (DHCP) to obtain the new network address, and wherein the instructions which when executed cause the network device to acquire a new network address comprise instructions which when executed cause issuing a DHCP FORCE_RENEW message to the network device.
33. (New) The computer-readable storage medium of claim 18, wherein the network device uses dynamic host control protocol (DHCP) to obtain the new network address, and wherein the instructions which, when executed, cause the network device to acquire the new network address comprise instructions which when executed cause resetting a port that is coupled to the network device to prompt a user to command the network device to request a new network address using DHCP.
34. (New) The computer-readable storage medium of claim 18, wherein the network device uses dynamic host control protocol (DHCP) to obtain the new network address, and wherein the instructions which when executed cause the network device to acquire the new network address comprise instructions which when executed cause issuing a DHCP FORCE_RENEW message to the network device.
35. (New) The computer-readable storage medium of claim 18, wherein instructions which when executed cause the network device to acquire a new network address comprise instructions which when executed cause providing the network device with an IP address that is selected from a plurality of IP addresses within a special IP subnet.
36. (New) The apparatus of claim 19, wherein the network device uses dynamic host control protocol (DHCP) to obtain the new network address, and wherein the means for causing the network device to acquire the new network address comprise means for resetting a

port that is coupled to the network device to prompt a user to command the network device to request a new network address using DHCP.

37. (New) The apparatus of claim 19, wherein the network device uses dynamic host control protocol (DHCP) to obtain the new network address, and wherein the means for causing the network device to acquire the new network address comprise means for issuing a DHCP FORCE_RENEW message to the network device.
38. (New) The apparatus of claim 19, wherein the means for causing the network device to acquire a new network address comprise means for providing the network device with an IP address that is selected from a plurality of IP addresses within a special IP subnet.
39. (New) The computer-readable storage medium of claim 24, wherein the instructions which when executed cause the network device to acquire a new network address comprise further instructions which when executed cause:
re-configuring a dynamic host control protocol (DHCP) server to require said server to issue any new network address to the network device only from a specified group of network addresses that is reserved for users associated with elevated user risk;
and
performing any one of the steps of:
 - (a) resetting a port that is coupled to the network device to trigger the network device to request a new network address using DHCP;
 - (b) issuing a DHCP FORCE_RENEW message to the network device;
 - (c) prompting the network device to request a new network address using DHCP; or
 - (d) waiting for expiration of a lease for the first network address of the network device.
40. (New) The computer-readable storage medium of claim 24, wherein the instructions which when executed cause configuring one or more security restrictions comprise instructions which when executed cause:

modifying an internet protocol (IP) access control list (ACL) associated with a port that is coupled to the network device to permit entry of IP traffic from only the new network address; and

modifying a media access control (MAC) ACL associated with the port to permit entry of traffic only for a MAC address that is bound to the new network address.

41. (New) The apparatus of claim 25, wherein the means for causing the network device to acquire a new network address further comprise:
means for re-configuring a dynamic host control protocol (DHCP) server to require said server to issue any new network address to the network device only from a specified group of network addresses that is reserved for users associated with elevated user risk; and
means for performing any one of the steps of:
 - (e) resetting a port that is coupled to the network device to trigger the network device to request a new network address using DHCP;
 - (f) issuing a DHCP FORCE_RENEW message to the network device;
 - (g) prompting the network device to request a new network address using DHCP; or
 - (h) waiting for expiration of a lease for the first network address of the network device.
42. (New) The apparatus of claim 25, wherein the means for configuring one or more security restrictions comprise:
means for modifying an internet protocol (IP) access control list (ACL) associated with a port that is coupled to the network device to permit entry of IP traffic from only the new network address; and
means for modifying a media access control (MAC) ACL associated with the port to permit entry of traffic only for a MAC address that is bound to the new network address.